

**NOTICE OF BREAKDOWN OF EQUIPMENT**  
**ARTICLE XX - SECTION 202.C**

1. Breakdown No.: 94-1203
2. Date & Time of Breakdown: Date: 10/04/94 Time: 0500 hours
3. Company Name: USX Corporation - USS Clairton Works
4. Specific Equipment Involved or Affected: No. 1 Control Room.
5. BAPC Permit Number (if applicable):
6. Location: Clairton, PA
7. Nature and cause of breakdown: Coke oven gas was flared or released at the following batteries:

Date	Battery	Start Time	End Time	Duration		Flared	
				Min.	Sec.	Yes	No
10/04/94	B	04:55	06:35	100	00	Yes	
10/04/94	1	04:45	06:15	90	00	Yes	
10/04/94	2	04:55	05:40	55	00	Yes	
10/04/94	3	04:45	06:15	90	00	Yes	
10/04/94	7	04:45	06:30	105	00	Yes	
10/04/94	8	04:45	06:10	85	00	Yes	
10/04/94	9	04:45	06:10	85	00	Yes	
10/04/94	13	05:00	06:10	70	00	Yes	
10/04/94	14	05:00	06:10	70	00	Yes	
10/04/94	15	05:00	06:30	90	00	Yes	
10/04/94	19	05:00	06:10	70	00	Yes	
10/04/94	20	05:00	07:00	120	00	No	

The flares were activated when the battery coke oven gas suction pressure dropped because of the loss of 5 vacuum axis. A cable fault at an Electric Distribution Center (EDC #1) caused the K5 & K5\2A buses to trip. These buses were supplying power to four (4) vacuum axis. The fault also caused a momentary under voltage which tripped an additional vacuum axi off-line. Vacuum axi start-up procedures were initiated immediately. Westinghouse was called in to help investigate the incident.

Axi start-up times are listed as follows:

Equipment	Date	Time
C-140	10/04/94	06:00
C-155	10/04/94	06:25
C-170	10/04/94	06:50
C-175	10/04/94	07:40
C-150	10/04/94	09:00

All flares functioned with the exception of Battery #20. Battery #20 flare failed to ignite because the pilot light was out. The pilot light was observed out on the previous turn. Attempts to re-light the pilot during the previous turn and the midnight turn were unsuccessful. The pilot light design is being evaluated.

8. Identification of Emissions:

- A. Type(s) (CO, NOX, SO2, Particulates, Hydrocarbons, etc.)  
Released raw Coke Oven Gas and products of combustion of Coke Oven Gas.
- B. Toxic qualities of each type (including its qualities as an irritant, and its potential for causing illness, disability, or mortality). Unknown.
- C. Amount of each type emitted (or likely to be emitted).  
Light to moderate.

9. Measures taken (or to be taken) to minimize length of breakdown and amount of emissions, including shutdown or curtailment (or why it is impossible or impractical to do so).

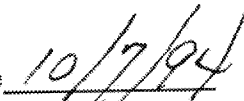
Battery charging operations were suspended. Power was re-established. Start-up procedure for vacuum axis was initiated immediately.

Facility back in operation - Date: 10/04/94 Time: 0700 hours

Signature

  
W. C. Graeser

Date



Senior Environmental Control Engineer Phone: 233-1467

REGIONAL CASE NUMBER PA95013

INFORMATION SHOWN ON THIS FORM IS SUBJECT TO MINOR CHANGES.  
OFFICIAL NRC REPORTS ARE SENT TO VNTSC ON A DAILY BASIS.

From: National Response Center  
USCG HQ Washington, D.C.  
1-800-424-8802

To: MS MARZULLI  
U.S. EPA III  
Incident Report # 263885

INCIDENT DESCRIPTION

\*Report taken by MST3 BLANCHARD at 15:52 on 04-OCT-94  
Incident Type: FIXED  
Incident Cause: EQUIPMENT FAILURE  
Affected Area: ATMOSPHERE  
The incident was discovered on 04-OCT-94 at 07:00 local time.  
Affected Medium: AIR

REPORTING PARTY

Name: RANDAL YORK  
Organization: US STEEL  
Address: 400 STATE ST  
CLAIRTON, PA 15025  
US STEEL called for the responsible party.  
Day Phone: (412)2331114  
Type of Organization: PRIVATE ENTERPRISE

SUSPECTED RESPONSIBLE PARTY

Name: RANDAL YORK  
Organization: US STEEL  
Address: 400 STATE ST  
CLAIRTON, PA 15025  
Day Phone: (412)2331114  
Type of Organization: PRIVATE ENTERPRISE

INCIDENT LOCATION

400 STATE ST  
CLAIRTON, PA 15025  
County: ALLEGHENY

RELEASED MATERIAL(S)

CHRIS Code: NCC COOK OVEN GAS  
Qty Released: 1200 LBS(S) Qty in Water: 0 NON(S)

SOURCE/CAUSE OF INCIDENT

BATTERY NO. 20//POWER FAILURE IN FLARE

DAMAGE

Injuries: Fatalities: Evacuations: Damages:

REMEDIAL ACTIONS

SECURED BATTERY OPERATION//GAS COMPRESSOR RESTORED

NOTIFICATIONS BY CALLER

EPA: Y STATE: CG: OTHER: DESC:

NOTIFICATIONS BY NRC

U.S. EPA III MS MARZULLI  
04-OCT-94 15:58

✓ CO 3AT21  
called PADO 6V  
update of State  
Air Quality  
10/4/94 CM



U. S. Steel  
Clairton Works  
400 State Street  
Clairton, PA 15025-1855

RECEIVED

JUN 1 1993

CASE DEVELOPMENT SECTION  
EPA Region III

May 24, 1993

Deputy Director  
Allegheny County Health Department  
Bureau of Air Pollution Control  
301 Thirty-Ninth Street  
Pittsburgh, PA 15201

U.S. Environmental Protection Agency  
Region III  
Air, Radiation & Toxics Division  
841 Chestnut Building  
Philadelphia, PA 19107  
ATTN: Elizabeth M. Ackerman (3AT23)

Assistant Council  
Department of Environmental Resources  
Southwest Region  
400 Waterfront Drive  
Pittsburgh, PA 15222-4745  
ATTN: Ward Kelsey, Esq.


Department of Justice  
Land and Natural Resource Division  
9th and Pennsylvania Avenue, Room 1744  
Washington D.C. 20530  
ATTN: David Street, Esq.

Subject: Breakdown Report 93-0072  
#2 Control Room  
USS Clairton Works

Gentlemen:

The attached form confirms our verbal report of the subject incident. Any questions concerning this matter should be referred to W. C. Graeser at 233-1467.

Very truly yours,

  
G. T. Weber, Jr.  
General Manager  
Coking Operations



NOTICE OF BREAKDOWN OF EQUIPMENT  
ARTICLE XX - SECTION 202.C

1. Breakdown No.: 93-0072
2. Date & Time of Breakdown: Date: 05/20/93 Time: 1240 hours
3. Company Name: USX Corporation - USS Clairton Works
4. Specific Equipment Involved or Affected: No. 2 Control Room.
5. BAPC Permit Number (if applicable):
6. Location: Clairton, PA
7. Nature and cause of breakdown: A total loss of control power occurred at 1235 hours causing eleven (11) vacuum machines to shut down. As a result, raw gas by passed the Main Regenerators, Light oil Regenerators, and Sulfur Plant. When the power was restored, the suction pressure to the batteries fluctuated causing the north igniter flare on #7 Battery to flare from 12:40 - 12:45 hours. Investigation revealed that the power loss occurred when the capacitors to the uninterruptable power supply faulted to ground shutting down the inverter.
8. Identification of Emissions:
  - A. Type(s) (CO, NOX, SO2, Particulates, Hydrocarbons, etc.) Elevated H2S in underfiring and downriver gas line systems, causing increased SO2 at point of combustion. Released products of combustion of Coke Oven Gas.
  - B. Toxic qualities of each type (including its qualities as an irritant, and its potential for causing illness, disability, or mortality). Unknown.
  - C. Amount of each type emitted (or likely to be emitted).  
Light to moderate.
9. Measures taken (or to be taken) to minimize length of breakdown and amount of emissions, including shutdown or curtailment (or why it is impossible or impractical to do so).

Power was restored and systems restarted.

<u>Equipment</u>	<u>Date &amp; Time Back in Service</u>
Flow thru Main Regenerators	05/20/93, 1700 hours
Flow thru L.O. Regenerators	05/20/93, 1705 hours

<u>Equipment</u>	<u>Date &amp; Time Back in Service</u>
Partial Gas Desulfurization Starts	05/20/93, 1705 hours
L.O. Regenerators Bypass Valve Closed	05/20/93, 1707 hours
Main Regenerator Bypass Valve Closed	05/20/93, 1730 hours
All Gas being Desulfurized	05/20/93, 1730 hours

10. Facility back in operation - Date: 05/20/93 Time: 1730 hours

Signature *H.R. McCollum* Date *5/24/93*  
W. C. Graeser  
Senior Environmental Control Engineer Phone: 233-1467  
*H. R. McCOLLUM*  
*MGR. ENV. CONTROL*